IN THE CLAIMS

1-13. (Canceled)

14. (Currently Amended) Transparent fireproof glazing comprising at least two glass sheets and an intumescent layer of material being located between the glass sheets, the layer containing primarily a phosphate-based compound as the intumescent material and the layer containing a substance from the group consisting of pyrogenous silica and a mixture of pyrogenous silica and alumina.

15. (Previously Presented) Glazing according to Claim 14, wherein the phosphate-based compound is a hydrogen phosphate of X, where X is selected from the group consisting of Mg, Ca and Al.

16. (Previously Presented) Glazing according to Claim 15, wherein the phosphate-based compound has an atomic ratio P/X grater than 2.0.

17. (Previously Presented) Glazing according to Claim 14, wherein the intumescent layer further includes at least one of:

(a) a salt of aluminum, or

(b) a hydroxide of aluminum.

18. (Currently Amended) Glazing according to Claim 17, wherein the ~~phospate-based~~ phosphate-based compound is a hydrogen phosphate of Mg, and the atomic ration of Al/Mg is in the range of between 0.1 to 0.4.

19. (Currently Amended) Glazing according to Claim 14, and further including at least on of the following features (a) through (c):

(a) the silica in the intumescent layer is composed of particles having an average grain size in the range of between 7 and 40 nanometers;

(b) the quantity of silica in the intumescent layer is between 1 and 10% by weight of the

intumescent layer;

(c) the intumescent layer includes water in the amount of between 18 to 40% by weight of such layer.

20. (Previously Presented) Glazing according to Claim 19, and including at least two of the features (a) through (c).

21. (Previously Presented) Glazing according to Claim 19, and including all of the features (a) through (c).

22. (Previously Presented) Glazing according to Claim 14, wherein the quantity of silica in the intumescent layer is between 2 and 6% by weight.

23. (Previously Presented) Glazing according to Claim 14, wherein the intumescent layer includes water in the amount of between 30 to 35% by weight of such layer.

24. (Previously Presented) Glazing according to Claim 14, wherein the intumescent layer includes water in an amount which is adjusted so that the refractive index of the intumescent layer approximates the refractive index of the silica contained therein.

25. (Previously Presented) Glazing according to Claim 14, wherein the intumescent layer includes an additive so that the refractive index of the intumescent layer approximates the refractive index of the silica contained therein.

26. (Previously Presented) Glazing according to Claim 25, wherein the additive is an amount not exceeding 15% by weight of the intumescent layer.

27. (Previously Presented) Glazing according to Claim 25, wherein the additive is selected from the group consisting of glycerol, DMSO and ethylene glycol.

28. (Currently Amended) Glazing according to [[claim]] Claim 25, wherein the additive has a higher index of refraction that the index of refraction of the phosphate-based compound.

29. (Previously Presented) Glazing according to Claim 14, wherein the intumescent layer includes a water content and a silica context such that the intumescent layer is sufficiently fluid to flow between the glass sheets and further forms a gel therebetween in approximately 24 hours.

30. (Currently Amended) A method of forming a fireproof glazing including at least two glass sheets with an intumescent layer therebetween, the intumescent layer having sufficient fluidity to flow between the glass sheets and to thereafter form a gel therebetween, comprising the steps of:

(a) providing for the intumescent layer primarily a phosphate-based solution having a first index of refraction;

(b) mixing a pyrogenous silica having a second index of refraction with said phosphate-based solution; and

(c) adjusting as necessary the first index of refraction to approximate the second index of refraction such that the intumescent layer flows between the glass sheets and thereafter forms a gel as aforesaid.

31. (Previously Presented) The method according to Claim 30, wherein step (c) is at least on of the following:

(d) adjusting the amount of water in the phosphate-based solution;

(e) providing an additive to change the first index of refraction.

32. (Previously Presented) The method according to Claim 31, and including both steps (d) and (e).

33. (Previously Presented) The method according to Claim 30, wherein the amount of said pyrogenous silica is between about 1 and 10% by weight of the intumescent layer.

34. (Previously Presented) The method according to Claim 30, wherein the phosphate-based solution has an atomic ration P/X greater than 2, and where X is selected from the group consisting of Mg, Ca and Al.

35. (Previously Presented) The method according to Claim 30, wherein the intumescent layer further includes a crystal formation retardant which at least retards, if not prevents, the formation of silica crystals.

36. (Previously Presented) The method according to Claim 25, wherein the phosphate-based solution includes phosphate of magnesium and the crystal formation retardant includes aluminum present in an atomic ration Al/Mg in the range of between 0.05 to 0.4.

37. (Previously Presented) The method according to Claim 31, wherein the additive is present in an amount not exceeding 20% by weight of the intumescent layer.

38. (Previously Presented) The method according to Claim 37, wherein the additive is selected from the group consisting of glycerol, DMSO and ethylene glycol.

39. (New) The method according to Claim 30, wherein the silica in the intumescent layer is composed of particles having an average grain size in the range of between 7 and 40 nanometers.

40. (New) The method according to Claim 39, wherein the amount of said pyrogenous silica is between about 1 and 10% by weight of the intumescent layer.